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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,116	10/09/2003	Atsushi Takane	58799-098	8082
7590 04/22/2004 McDermott, Will & Emery 600 13th Street, N.W. Washington, DC 20005-3096			EXAMINER SMITH, JOHNNIE L	
			ART UNIT 2881	PAPER NUMBER

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p>10/681,116</p>	<p>Applicant(s)</p> <p>TAKANE ET AL.</p>	
	<p>Examiner</p> <p>Johnnie L Smith II</p>	<p>Art Unit</p> <p>2881</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 50-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 50-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 50-55 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 5,512,747 (Maeda). In reference to claim 1, Maeda teaches a method for forming an image by a scanning charged particle apparatus, having steps of focusing a plurality of two dimensional images each at different focus points by detecting particles emitted from a sample using a scanning charged particle beam; evaluating focus evaluation values of each pixel on the two dimensional images; selecting the pixel having larger focus evaluation values than at least one other pixel at same coordinates of the two dimensional images; and synthesizing the selected pixels two dimensionally for forming the image of a scanning range of the charged particle beam (abstract).
3. In reference to claim 51, Maeda teaches a charged particle beam apparatus having a charged particle source; a scanning deflector for scanning a charged

particle beam emitted from the charged particle source on a sample; an objective lens for adjusting a focus of the charged particle beam; a detector for detecting particles emitted from the sample; and an image processor for forming an image based on the particles detected by the detector, wherein said image processor memorizes a plurality of two dimensional images on different focus points, selects a pixel having focus evaluation value and at least one other pixel at same coordinates of the two dimensional images, and forms the image by arranging the selected pixels two dimensionally (claim 1).

4. In reference to claims 52-55, Maeda teaches a charged particle beam apparatus comprising: a charged particle source; a scanning deflector for scanning a charged particle beam emitted from the charged particle source on a sample; an objective lens for focusing the charged particle beam; a detector for detecting particles emitted from the sample; and a controller for adjusting the objective lens, wherein: said controller calculates a focal depth of the charged particle beam and determines a focus change amount based on the calculated focal depth when the focus of the charged particle beam is changed sequentially; wherein said controller calculates said focal depth based on image forming conditions; wherein said image forming conditions include magnification of the image, an acceleration voltage of the charged particle beam, beam resolution, and/or a number of pixels of the

image; wherein said controller has an input device for inputting a number of images, and determines the focus change amount based on said calculated focal depth and the number of images inputted (column 1 lines 44-54, claims 1-4) .

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patents; 3,829,691 (Hufnagel), 5,142,147 (Kawamata et al), and 6,653,633 (Takane et al). All of the cited US patents contains art similar to that being claimed by applicant, more specifically, image processing devices and apparatuses.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnnie L Smith II whose telephone number is 571-272-2481. The examiner can normally be reached on Monday-Thursday 7-4 P.M. and Alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JLSII

Johnnie L Smith II
Examiner
Art Unit 2881



JOHN R. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800